

SIRENA Technical Specifications

Dimensions

Crane weight	110 metric tons (242,200 lb.)
Pressure hull diameter (ID)	2600 mm (102.4 in or 8 ft 6 in)
Pressure hull diameter (OD)	2660 mm (104.7 in or 8 ft 8 ¾ in)
Overall length	20 meters (65 feet)
Overall height (to top of sail from skid)	5210 mm (205.1 in or 17 ft 1 in)
Transport height (to top of deck from skid)	2900 mm (114.2 in or 9 ft 6 in)
Beam (width)	4750 mm (187 in or 15 ft 7 in)
Draft (loaded)	2300 mm (90 in or 7 ft 6 in)
Freeboard (loaded)	910 mm (36 in or 3 ft)
Hatch diameter (main & emergency)	1066 mm (42 in or 3 ft 6 in)

Performance Characteristics

Operating depth (max.)	76 meters (250 feet)
Maximum/cruise speed	3.5/.5 knots
Seating capacity	46 passengers & 3 crew
Main propulsion (4)	11.75 kW or 15 HP each
Lateral thrusters (2)	3.75 kW or 5 HP each
Vertical thrusters (4)	3.75 kW or 5 HP each
Variable ballast pump (1)	3.75 kW or 5 HP
Battery capacity	120 Volt (278 kWh) & 24 Volt (26.8 kWh)
Endurance	12 dives @ 1 hour
Main & reserve air	198 m ³ or 7000 ft ³ each bank
Main oxygen storage	30 m ³ or 1059 ft ³
Reserve oxygen storage	110 m ³ or 3884 ft ³
Air conditioning system capacity	11.75 kW (42,650 Btu/hr)
Variable ballast tank capacity total (4 VBT's)	4 m ³ or 141 ft ³
Main ballast tank capacity total (10 MBT's)	15 m ³ or 530 ft ³

Instrumentation

Compass	Aircraft Gyro & Ritchie magnetic
Depth sounder	Seamaster
Pressure gauges	Digital and analog
VHF radio	ICOM
Underwater telephone/pinger	Subcom UDI
Atmospheric monitors (H ₂ , O ₂ , CO ₂)	Various

Viewing

Surface navigation lights (x 6)	24 Volts/25 Watts each (new in '06)
Underwater tour lights (x 24)	None currently fitted
Conning tower x 3 (flat)	254 mm (10 in) x 36 mm (1.29 in)
Forward & Aft (hemispherical)	1448 mm (57 in) x 42 mm (1.65 in)
Port & stbd. forward hemispherical	1067 mm (42 in)
Side viewports x 20 (flat)	762 mm (30 in) x 120 mm (4.72 in)

Safety

Life support (CO ₂)	Maintained at less than 0.5 %
Life support (O ₂)	Maintained between 19-22 %
Test depth	95.25 meters (312.5 ft)
Emergency drop tray	4000 kg (8,800 lb.)
Normal life-support endurance	12 hours for 49 people
Emergency life-support	72 hours for 49 people
Emergency re-breathers (one per crewmember)	CSE SR100's x 3
Safe Escape smoke hoods	CY Holdings x 46
Atmospheric monitoring system	Various (H ₂ , O ₂ & CO ₂)
Fire extinguishing system	Full dump Halon 1301 system

Life jackets (one per person + children's sizes)

Sufficient reserve air to blow MBT's 1.5 times @ maximum depth

Bilge pump with overboard discharge capability @ maximum depth

Seven independent power sources & three independent methods of surfacing

Emergency drinking water, lifeboat rations, waste & CO₂ removal equipment

Dual frequency underwater telephone equipped with four transducers & pinger

Support Equipment

120 Volt (4) and 24 Volt (3) battery chargers (220 Volt three phase 60 Hz)

480 LPM (17 CFM) skid mounted compressors (3) (220 Volt three phase 60 Hz)

Certification

American Bureau of Shipping (ABS) +A1 Manned Submersible

United States Coast Guard certified for 46 passengers & three crewmembers